

REMARKS/ARGUMENTS

Prior to entry of the instant amendment, claims 1-19 and 67-71 are pending in the subject application. By the instant amendment, the specification is amended, and claims 72 and 73 are added. Claims 1, 10, 69, 72 and 73 are independent.

In the next Office action, applicants respectfully request that the Examiner indicate whether the Information Disclosure Statement filed on February 23, 2006, has been considered.

Claims 1-19 and 67-73 are presented to the Examiner for further prosecution on the merits.

A. Status of Amendment After Final filed on February 7, 2006

Applicants filed an Amendment After Final on February 7, 2006. In the Advisory Action mailed on February 24, 2006, the Examiner indicated, under item no. 7, that the Amendment After Final would be entered for the purposes of appeal. The instant amendment re-presents the amendments and arguments of February 7th, in addition to adding two new claims and responding to the Examiner's February 24th comments.

B. Introduction

In the outstanding Office action, mailed October 17, 2005, the Examiner objected to the specification, rejected claims 1-19 and 67-70 under 35 U.S.C. § 112, second paragraph, rejected claims 1, 4, 6, 10, 13, 15, 19 and 67-68 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2005/0205868 to Yamazaki et al. ("the Yamazaki et al. reference"), rejected claims 2-3, 7-8, 11-12 and 16-17 under 35 U.S.C. § 103(a) as being unpatentable over the Yamazaki et al. reference in view of U.S. Patent Application Publication No. 2002/0036267 to Ikeda et al. ("the Ikeda et al. reference"), rejected claims 9 and 18 under 35 U.S.C. § 103(a) as being unpatentable over

the Yamazaki et al. reference, rejected claims 5, 14, 69 and 71 under 35 U.S.C. § 103(a) as being unpatentable over the Yamazaki et al. reference in view of U.S. Patent No. 6,916,681 to Asano et al. (“the Asano et al. reference”), and rejected claim 70 under 35 U.S.C. § 103(a) as being unpatentable over the Yamazaki et al. and Asano et al. references in view of the Ikeda et al. reference.

C. Objection to the Specification

In the outstanding Office action, the Examiner objected to the specification, stating that “200 Brinell” recited in claims 3 and 12 must be described in the originally filed disclosure. *Office action of October 17, 2005, at page 2.*

Applicants note that the Korean language priority document, Korean Patent Application No. 2002-87940, which applicants submitted at the time the instant application was filed and incorporated by reference in paragraph [0045] of the original specification, described the hardness scale as Brinell. By the instant amendment, paragraphs [0008], [0014], [0035] and [0051] are amended to reflect this hardness scale, as the Examiner required. Accordingly, applicants respectfully submit that no new matter is added and respectfully request that this objection be withdrawn.

D. Asserted Rejection Under 35 U.S.C. § 112, Second Paragraph

In the outstanding Office action, the Examiner rejected claims 1-19 and 67-70 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Applicants respectfully traverse this rejection.

In the outstanding Office action, the Examiner asserted that “a semiconductor chip is more complete than a thin film semiconductor device,” and required that applicants change the preamble of the claims accordingly. However, applicants respectfully submit that the

terms “chip” and “device” do not have precisely defined meanings to those of ordinary skill in the art. Rather, these terms are ascribed a large range of meanings. Further, the Examiner provided no basis for characterizing a “chip” as more complete than a “device.”

In addition, applicants respectfully submit that the use of the terms “chip” and “device” in the claims is consistent with the use of these terms in the specification. Thus, even if, as the Examiner asserts, these terms are used in the claims and the specification in a manner contrary to their ordinary use, the applicants are free to act as their own lexicographers and redefine these terms. Accordingly, one of ordinary skill in the art would find the claim language to be sufficiently definite. Therefore, applicants respectfully request that this rejection be reconsidered and withdrawn.

E. Asserted Anticipation Rejection of Claims 1, 4, 6, 10, 13, 15, 19 and 67-68

In the outstanding Office action, the Examiner rejected claims 1, 4, 6, 10, 13, 15, 19 and 67-68 under 35 U.S.C. § 102(e) as being anticipated by the Yamazaki et al. reference. Applicants respectfully traverse this rejection, and submit that the Examiner failed to set forth a *prima facie* case of anticipation under 35 U.S.C. § 102(e) for at least the reasons set forth below.

1) The Yamazaki et al. Reference Fails to Teach a Flexible Substrate

Claim 1 recites, in part, a “flexible substrate.” In the outstanding Office action, the Examiner asserted that the Yamazaki et al. reference discloses a glass substrate, and that a glass substrate is equivalent to a flexible substrate. In particular, the Examiner asserted that a glass substrate 301 disclosed in the Yamazaki et al. reference is the same material described by applicants as a flexible substrate. *Office action of October 17, 2005, at page 2.* Applicants respectfully disagree.

In particular, applicants note that the section of applicants' specification relied upon by the Examiner recites "[t]he flexible substrate may, however, be a glass substrate having a thickness less than about 100 μm . *Specification as filed at paragraph [0012], emphasis added.* Thus, applicants did not state that *any* glass substrate is a flexible substrate. Further, the Yamazaki et al. reference does not characterize the glass substrate 301 as being flexible, nor does it disclose that the glass substrate 301 has a thickness less than about 100 μm . Indeed, the Yamazaki et al. reference appears to clearly distinguish the glass substrate 301 from a flexible material. In particular, the Yamazaki et al. reference describes, in connection with FIG. 12, a "flexible circuit," which is not only illustrated as a wavy element, implying flexibility, but is also illustrated as being very much thinner than the glass substrate 301.

2) Response to the Examiner's February 24th Inherency Argument

In the Advisory Action of February 24th, the Examiner maintained that the glass substrate disclosed in the Yamazaki et al. reference can be construed to be flexible. In particular, the Examiner asserted that "the same material (glass) inherently constitutes the same physical property." Applicants respectfully disagree, and submit that the Examiner failed to provide support for this inherency argument.

As an initial matter, applicants note that the claims recite an apparatus comprising "a flexible substrate." Also, as noted above, the Yamazaki et al. reference discloses a glass substrate, yet the Yamazaki et al. reference fails to describe the glass substrate as being flexible. Thus, the only way for the Examiner to maintain this rejection is by asserting that the glass substrate is inherently flexible. However, in the outstanding Office action the Examiner did not provide any evidence to support such an inherency argument. Further,

applicants note that, to support an inherency argument, the evidence must do more than merely suggest a possibility that the glass substrate is flexible.

In order to support an inherency argument, the fact that a certain result or characteristic *may* occur or be present in the prior art is not sufficient. (MPEP § 2112, citing *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)). Rather, the Examiner must present evidence that makes clear that the missing descriptive matter is necessarily present. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. (MPEP § 2112, citing *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)). However, the Examiner has not shown any support for the assertion that the Yamazaki et al. reference discloses a glass substrate that is inherently flexible.

The Examiner bears the burden to come forward with evidence that the glass substrate described in the Yamazaki et al. reference is inherently flexible. To date, the Examiner has not done so. The Examiner has, at most, noted that applicants' specification describes a glass substrate as being flexible *when it has a thickness less than about 100 μm*. However, the Examiner has not demonstrated that the glass substrate disclosed in the Yamazaki et al. reference also has a thickness less than about 100 μm. Thus, applicants respectfully submit that the Examiner has failed to provide the necessary logical support for the inherency argument.

In view of the above, applicants respectfully submit that the Yamazaki et al. reference does not disclose or suggest a flexible glass substrate, as recited in claim 1 and, thus, the Yamazaki et al. reference fails to disclose, or even suggest, each and every element of claim 1. Therefore, applicants respectfully submit that claim 1 is allowable. Independent claim 10 recites a flexible substrate, and is likewise believed to be allowable. The

remaining rejected claims, viz., claims 4, 6, 13, 15, 19 and 67-68, depend, either directly or indirectly, from claims 1 and 10 and are believed to be similarly allowable. Therefore, applicants respectfully request that this rejection be reconsidered and withdrawn.

F. Asserted Obviousness Rejection of Claims 2-3, 7-8, 11-12 and 16-17

In the outstanding Office action, the Examiner rejected claims 2-3, 7-8, 11-12 and 16-17 under 35 U.S.C. § 103(a) as being unpatentable over the Yamazaki et al. reference in view of the Ikeda et al. reference. Applicants respectfully traverse this rejection. The Examiner has failed to show how the proposed combination of the Yamazaki et al. and Ikeda et al. references suggests the teachings noted above as missing from the Yamazaki et al. reference alone. Thus, as claims 2-3, 7-8, 11-12 and 16-17 depend, either directly or indirectly, from claims 1 and 10, they are believed to be allowable for at least the reasons set forth above. Therefore, applicants respectfully request that this rejection be reconsidered and withdrawn.

G. Asserted Obviousness Rejection of claims 9 and 18

In the outstanding Office action, the Examiner rejected claims 9 and 18 under 35 U.S.C. § 103(a) as being unpatentable over the Yamazaki et al. reference. In rejecting claims 9 and 18, the Examiner asserted that the thickness of “less than about 100 μm ” recited in claims 9 and 18 is a result effective variable. Applicants respectfully disagree and traverse this rejection for at least the reasons set forth below.

1) The Thickness of the Glass is not Recognized to be Significant

As an initial matter, applicants restate the arguments raised above, and submit that the Yamazaki et al. reference fails to disclose, or even suggest, a “flexible substrate,” as recited in claims 1 and 10. Since claims 9 and 18 further define a “flexible substrate,” they are believed to be allowable for at least the reasons set forth above. Further, applicants

submit that the Yamazaki et al. reference fails to recognize the significance of the thickness of the glass substrate 301. Accordingly, the thickness is not a result effective variable.

Applicants note that MPEP § 2144.05 (II) (B) requires that “a particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result. . . .” Applicants respectfully submit that the Examiner failed to meet this requirement. In particular, the Yamazaki et al. reference is silent as to the thickness of the glass substrate 301.

2) Response to the Examiner’s February 24th Motivation Argument

In the Advisory Action of February 24th, the Examiner asserted that one of ordinary skill in the art would be motivated to modify the Yamazaki et al. reference to include a glass substrate of less than about 100 µm. However, applicants respectfully submit, further to the above, that this assertion improperly assumes that the thickness of the glass substrate is recognized as a result-effective variable, and further submit that the Examiner jumped to this conclusion without providing the necessary support.

The law places the burden on the Examiner to establish a *prima facie* case of obviousness. As part of establishing the *prima facie* case, the Examiner must demonstrate “some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. . . .” (MPEP § 2142). The Examiner has failed to do so, and has, instead, simply skipped this step. Indeed, apart from discussing the applicants’ specification, the Examiner has failed to point out *any* discussion of a flexible substrate in *any* of the cited prior art.

In view of the above, applicants respectfully submit that the Examiner has failed to provide the necessary motivation for one of ordinary skill in the art, absent the teachings of the subject application, to adjust the thickness of the glass substrate 301 of the Yamazaki et

al. reference to be less than about 100 μm , as recited in claims 9 and 18. Thus, a glass substrate having a thickness less than about 100 μm is not obvious in view of the Yamazaki et al. reference. Therefore, applicants respectfully request that this rejection be reconsidered and withdrawn.

H. Asserted Obviousness Rejection of claims 5, 14, 69 and 71

In the outstanding Office action, the Examiner rejected claims 5, 14, 69 and 71 under 35 U.S.C. § 103(a) as being unpatentable over the Yamazaki et al. reference in view of the Asano et al. reference. Applicants respectfully traverse this rejection.

Independent claim 69 recites, in part, “a flexible substrate.” Applicants respectfully submit that the proposed combination of the Yamazaki et al. and Asano et al. references fails to suggest, much less disclose, each and every element of independent claim 69 for at least the reasons set forth above with respect to claims 1 and 10. Accordingly, applicants respectfully submit that claim 69 is allowable. As claims 5, 14 and 71 depend, either directly or indirectly, from claims 1, 10 and 69, they are also believed to be allowable for at least the reasons set forth above. Therefore, applicants respectfully request that this rejection be reconsidered and withdrawn.

I. Asserted Obviousness Rejection of claim 70

In the outstanding Office action, the Examiner rejected claim 70 under 35 U.S.C. § 103(a) as being unpatentable over the Yamazaki et al. reference and the Asano et al. reference in view of the Ikeda et al. reference. Applicants respectfully traverse this rejection. The Examiner has failed to show how the proposed combination of the Yamazaki et al., Asano et al. and Ikeda et al. references suggests the teachings noted above as missing from the Yamazaki et al. reference alone. Thus, as claim 70 depends from claim 69, it is

believed to be similarly allowable. Therefore, applicants respectfully request that this rejection be reconsidered and withdrawn.

J. New Claims

By the instant amendment, applicants have added independent claims 72 and 73. No new matter is added. Support for these claims may be found in the application as originally filed at, e.g., FIGS. 3P and 4, and paragraphs [0014] and [0035] of the specification. Applicants respectfully request entry and examination of these claims.

K. Conclusion

If the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all pending claims is hereby requested.

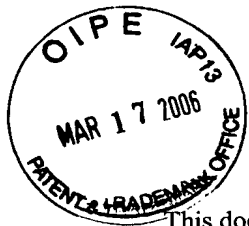
Respectfully submitted,

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DEPOSIT ACCOUNT CHARGE AUTHORIZATION

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If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.